A RECONSIDERATION OF GUESSING STRATEGY
IN THE FRAMEWORK OF COGNITIVE LINGUISTICS

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Abstract

Guesiing strategy is a traditional and effective way for EFL students to improve their reading ability. Almost all readers apply this method to a greater or lesser extent when reading different kinds of materials. This is partly because readers simply do not have the time to look up every new word in the dictionary. Linguistics developments in recent years make it possible to reconsider this kind of strategy in the framework of cognitive grammar. Many theories have provided more evidence regarding the effectiveness of a guessing strategy. Linguistic theories dealing with terms such as schema, prototype, etc. make it possible to reconsider the strategy in a broader context. Schemata theory tells us that the context of a given word is not the only source and basis of guessing. Other factors include background knowledge and the given word itself. Prototype theory shows how readers guess the meaning of a familiar word form with a completely new part of speech or meaning. Even though cognitive linguistics has shown the effectiveness of a guessing strategy in reading, the applicability of the method needs to be reconsidered. Some materials may not be suitable for the application of a guessing strategy.

Key words: guessing strategy, context, culture model, prototypical meaning

Guessing strategy, sometimes called Inference Making, is a commonly used method in reading. Based on the given information or context, readers can guess the meaning of certain new words. In fact, GSS is a traditional method that both readers actually reading and students practicing reading take it for granted as an effective and convenient way to speed up the reading process and understand texts better. Recent developments in the field of linguistics have provided more support for this strategy in these years. In particular, support has come from a newly developed science — Cognitive Linguistics.

Factors in GS

Traditionally, context is regarded as a ready source to guess the meaning of a new word, but the implication of "context" is very vague. Does it only refer to the information before or after a given word or something more general? Besides, the so-called context are there any other factors involved in the guessing process? What are they?

Narrowly speaking, context refers to the sentences or words that come before and after a word or sentence and that help you understand its meaning. Longman Dictionary of Contemporary English (2003) says they provide the most closely related implications for the word. Therefore, readers get the most direct inference material from the context. For example, if the word "verbatim" appears, the word must be hard to recognize even for some native speakers, but when we encounter it Sentence 1, it is much easier to deduce the meaning of "verbatim" — word by word because in the context there is the expression "in your own words".
It is more efficient to take lecture notes in your own words than to try to record the lecture verbatim.

However, reading is not so simple. No one will agree that surrounding sentences are always an infallible source of help for the meaning of the target word. And no one can guarantee that every student who knows all the other words in the sentence can infer the correct meaning of the word. We often say “reading between the lines” that is, try to understand the meaning as a whole instead of a series of individual words. When reading a given text, we have to activate all the relevant knowledge stored in our mind to understand the writer’s purpose. After all, to a certain extent, reading is an information-mining process. When covering the second sentence, the information in the first should have theoretically become part of our stored knowledge. It has been embedded in our minds. But each individual has stored in his mind a unique knowledge structure due to their different experiences, learning habits, interests, and amount of reading. For example, a boy who loves sports will be very fascinated by the sports news when reading newspapers or TV programs or surfing on the internet. Thus, unconsciously, a certain number of sporting terms and pictures will have accumulated in his mind, and he will have a better understanding of the following paragraph than a girl who is only fond of listening to music or painting.

The second of the three types of football is called rugby. It is played professionally in only a few countries, such as Britain, France, Australia, and New Zealand. When rugby is played by professional players, it is called Rugby League. Amateur rugby is called Rugby Union. There are different rules for Rugby Union and Rugby League.

Reading the same material may imply different processes for different readers—for those like the girl who have little prior knowledge about the topic they are “learning new knowledge from the material.” It is often called “bottom-up reading” in that readers just rely on their knowledge of language to recognize letters, words, and sentences for the construction of meaning. Without much stored knowledge of sports, the readers may not realize that the word “football” is not simply a term referring to “a game played by two teams of eleven players who try to kick a round ball into the other team’s goal.” They may be puzzled at the very beginning of the paragraph. Are there three types of football? What are the two others? What is rugby like? Therefore, their “exciting point” may be “the three types of football” and the word that they have to guess is “rugby.” The only material they can rely on is the words and the sentences in the paragraph—the context in a narrow sense. While for those like the boy who is familiar with such a topic, they are “reviewing and comprehending the material with prior knowledge,” which is usually called “top-down reading.” They use their prior knowledge to make predictions and comprehensions about the content of the text. The reader receives the message and he can confirm what he expects from the text and makes his own adjustment. Their “exciting point” may be which is the strongest team among those nations mentioned or “Rugby Union and Rugby League” or the differences between the two. They are using their old knowledge to predict the new information. The factors include both context and the reader’s prior knowledge. Such a cognitive basically psychological view of the stored knowledge about a certain field is called the Cognitive model. Ungerer and Schmid 2001 Cognitive models are private. They differ from one person to another and also from one living group to another. American students will hold a different view of the word “adult” from Chinese youngsters. “Adult” means independence from the family for the former, while it only means older than eighteen for most Chinese. So cognition cannot be separated from culture and if the cognitive model is considered to be one side of a coin, the culture model will be the other. The only distinction is that “Cognitive models” are related to cognitive linguistics and psycholinguistics while “Culture models” belong to sociolinguistics and anthropological linguistics. Ungerer and Schmid 2001. Broadly speaking, Culture models and Cognitive models form the background knowledge of reading. They both contribute to the guessing procedure and influence the accuracy of the result.

With abundant background knowledge, the readers can understand better the material using a top-down approach. However, the reading process is so complicated that it involves both top-down and bottom-up approaches and other relevant knowledge we can operate in the memory as well. This is the theory of a cognitive concept — schemata. For example, take the paragraph.

The away team supporters may attack the home fans. They may try to get into the home
The home supporters fight back as the troubles spread and the police try to stop the fighting.

This is from a passage entitled Football Fans and Football Violence. The word "away" in the first sentence is a simple word. But in such a context, what does it mean? Firstly, from the title, we can predict with our basic ideas about the game of football that it will introduce the conflict between two groups of fans, top down reading. On the sentence "on the other hand" we have the phrase "home fans" so now we can guess that "away team supporters" may refer to the rival group of "home fans" bottom up reading.

It seems that the guessing process towards the word "away" in such a context has involved both drawing implications from the text and deducing help from schemata. However, there may be another factor that helps readers guess the meaning of the word more confidently — the word itself. "Away" is a simple word and we are familiar with its original meaning — "staying some distance from a place or a person" and a common phrase is "far away." Therefore, if a team is playing away, it may be playing a game far away from its home and at its opponent's field or sports hall. So the word itself sometimes also contributes to the guessing procedure. Besides the known meaning, the construction of the word is also an important source of guessing. Here is another example to show the function of the word construction.

4 The Morrices hired a full-time nurse to help them care for their newborn triplets.

Common sense tells us that if "the Morrices" have hired a full-time nurse rather than a part-time one, it must be due to a particularly big need for help. In the context, we have a word "newborn." So that we can decide that the reason they need the nurse is to help look after a newborn baby. But how many babies are there — one, two, three or more? It seems that we can only get the answer from the word itself. Since "triplets" is a prefix meaning "three," the word "triplets" is likely to be "three children born at the same birth." So the word itself can make the guess more accurate.

More evidence of the importance of construction comes from those words formed by word roots plus affixes. It is also the best way to learn new words. For example, we can guess that the words "formalize," "formality," "informal" belong to the same family as the word "formal" and must have some kind of relationship with "formal."

The three factors — background knowledge — the cognitive models and culture models — the context and the known meaning or construction of the word itself all contribute to the guessing result. The more factors involved in the process, the more accurate the result will be.

II. Prototypical word meaning

As described, Culture models, Cognitive models, context and the word itself all constitute an individual reader's schemata and determine whether he or she can access the new information in a passage quickly and accurately so as to infer the meaning of a new word or phrase, and prevent it being an obstacle to reading. Comparatively, we seem to put more emphasis on Culture models, since it covers so large a field that every part of your knowledge is likely to be included. But Culture can sometimes play a supporting role in a guessing strategy. However, the decisive role is the original vocabulary structure or meaning as mentioned in 3. And the theoretical basis here is prototype theory.

As a psychologist, Eleanor Rosch has set out to explore the psychological background of focal colors, birds, shapes, fruit and so on since the 1970s. Take BIRD as an example. If you heard somebody say "there is a bird on the tree," perhaps the first image that comes to your mind is a robin or sparrow. Rarely will it be an ostrich, a dove, or parrot. Why? The definition of "bird" in the Longman Dictionary of Contemporary English 2004 is a creature with wings and features that lays eggs and can usually fly.

The essential features in this definition are:

1. has wings
2. has features
3. lays eggs
4. can usually fly

And the definitions for any birds are based on such an image. For example,

3 A robin is a common small European bird with a red breast and brown back.
An ostrich is a large African bird with long legs that runs very quickly but cannot fly.

Likewise other definitions, the two definitions first classify the target term into the category of BIRD, which means they define all the essential features of a bird: has wings, has features, lays eggs, and can fly. And it is supposed that every normal individual has an image of a bird. Then the last parts point out the other features that can distinguish them from the other kinds of birds. For a robin, the distinctive features are “a red breast” and “a brown back” while for an ostrich, the features are “long legs” if runs very quickly and “cannot fly.” An ostrich does not share one of the essential features of BIRD — “can usually fly” while a robin possesses all, so comparatively speaking, a robin seems to have more of the features of a BIRD than an ostrich. If we check more definitions of different kinds of birds, we will find that the reason why a robin or sometimes a sparrow is usually taken as the representative of a prototypical bird is that the features of a robin or a sparrow are the closest to a BIRD.

The application of prototype theory to vocabulary guessing is worth investigating. Though it is not used as widely as the context clues, the theory can definitely help in reading passages and understanding sentences. We know that a guessing strategy is a useful method often applied by EFL students when reading, partly because of the difficulty of learning a large amount of target language vocabulary by heart in a short time. A recurrent problem in any second language acquisition is what more the words often have more than one meaning and part of speech — some are used frequently, but not. Apart from the words that are completely new to us, sometimes the word form is not new, but the meaning and part of speech change like “away” in Example 3. In such cases, the known meaning and part of speech may help guess the new usage of the word. Most EFL students know that the first entry for “away” in a dictionary is “staying some distance from a place or a person.” It is an adverb. Since the first entry listed in the dictionary is usually the one with the highest frequency when students learn the word “away,” they often learn its most frequent usage first. Therefore, such a definition can be regarded as the prototypical meaning of a given word. But when a phrase such as “away team” or “away supporters” is formed, its meaning changes, and so does the part of speech. The prerequisite of using the theory is that the reader has stored the original meanings or at least one part of speech of a certain amount of vocabulary in his mind and can use this information skillfully. Then they can use such knowledge to infer the new concept of a learned word in a different part of speech. “Cushion” is a noun whose original meaning is “a cloth bag filled with soft material that you put on a chair to make it more comfortable.” With the prototypical meaning and part of speech of the word “cushion,” it will not be very hard to guess the meaning of “cushion” in the sentence “His hat helped to cushion the blow.” Another word is “sandwich.” Knowing the prototypical meaning of “sandwich” is usually “two pieces of bread with cheese, meat, egg, etc. between them,” we can infer that in the sentence “The child was sandwiched in between his parents” means the child was just between the parents. Sometimes the adjectives can also be used in another way like “better” in “He knew there was no wonder than the human capacity to learn that the tiniest particle of knowledge has the power to better us.”

III Applicability of GS

We have confirmed that inference making is an effective way of reading. But there are some misunderstandings about such views. As Zhao 2002 pointed out in his paper “Guessing Strategy in Reading Comprehension” there is ample evidence that a guessing strategy does not apply well to L2 readers. Evidence also supports the use of direct methodological instruction of vocabulary to improve the learner’s reading skill. The misconception here is whether this strategy is used for the benefit of reading or vocabulary learning. An ideal outcome is that the reader, through inference, understands the passage and at the same time absorbs the new word into his or her lexicon. But if the goal is to understand the paragraph or passage, the correctness of guessing need not be 100 percent. 70 to 80 percent will be enough depending on the factors involved in the guessing process. On the other hand, while reading is a good way to accumulate vocabulary, a guessing strategy is not.

We have stated that the correctness of inference should not be expected to reach 100 percent every time. It depends on the complexity and richness of the background context and the stored knowledge structure regarding the target word. Therefore, not all texts are suitable for applying a guessing strategy. Reading
The purpose and type of reading material also play a quite important role in deciding the reading method. Kathleen T. McWhorter (1986) has provided a form (5) to show that different reading methods result in different reading rates.

<table>
<thead>
<tr>
<th>Method of reading</th>
<th>Average speed</th>
<th>Purpose in reading</th>
<th>Types of material</th>
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<tbody>
<tr>
<td>Analytical reading</td>
<td>Under 100 WPM</td>
<td>Detailed comprehension, analyze, evaluate, criticize</td>
<td>Poetry, argumentative</td>
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<td>writing</td>
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<td>Study reading</td>
<td>150-250 WPM</td>
<td>High comprehension and high recall</td>
<td>Textbooks, literary research</td>
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<tr>
<td>Casual reading</td>
<td>250-300 WPM</td>
<td>Moderate comprehension of main ideas, entertainment, enjoyment, general information</td>
<td>Novels, newspapers, magazines</td>
</tr>
<tr>
<td>Accelerated reading</td>
<td>Above 600 WPM</td>
<td>Overview of material, rapid location of a specific fact</td>
<td>Reference material, magazines, novels, nonfiction</td>
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The form tells us that different materials may be associated with different reading purposes and require different reading speeds. The application of a guessing strategy should also be optional. Firstly, poetry or argumentative writing should be analyzed and digested, but not "guessed." It does not require speed but quality of comprehension, so a guessing strategy is not suitable here. When reading novels or even textbooks, we can use the guessing strategy freely because we can understand the plot perfectly even though we do not know the exact meaning of the word. So if we rank the applicability of a guessing strategy to the different types of reading materials listed in the form, it should be something like:

Analytical reading, Study reading, Casual reading, Accelerated reading

For some ESL students, guessing may sometimes be even more beneficial to understanding than consulting a dictionary. But for some technical or professional material, guessing may not work very well. The reason is that such material may require 100% percent understanding rather than speed.

The third point to clarify is that a guessing strategy is not applicable to all EFL readers. For some beginners, language knowledge input is so limited that they do not have the abundant basic information to help infer the meaning. As we have mentioned, the three important factors are background knowledge, context, and the word's prototypical meaning and construction. Without much language knowledge, the last two factors will not work, thus the accuracy of the guessing result will be very low, which means they will make many more mistakes and be more likely to misunderstand the text. Those people who devote themselves to scientific research should not often apply the strategy either because, as explained, they are required to have a full understanding of the text rather than a rapid overview. As a result, for EFL learners with a certain level of language knowledge — who are located somewhere between beginners and senior researchers and who constitute the largest proportion of EFL students — a GS is still an indispensable reading method.

Above all, while being a traditional method to help improve reading speed and understanding, a guessing strategy has drawn more and more support from cognitive linguistics, which means it can still very much be considered an effective method for reading texts and for inferring the meaning of new words.
Notes
1. The example is quoted from Lu Fengfang’s Reading Skills 1994.
2. Referring to Teaching of Reading (from the website http://www.swj.cn/course/zywjk/tead_wb07.htm).
3. Referring to Teaching of Reading (from the website http://www.swj.cn/course/zywjk/tead_wb07.htm).
5. In the text we use capitals to refer to a cognitive category.
6. Without special notes the definitions in the paper are all from Longman Dictionary of Contemporary English 2004.
7. Quoted from Lu’s Reading Skills P4 P4 1994 Whether the readers being invested are native speakers or second language learners is not mentioned.

References

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